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Thursday, July 11



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Atomic Blogs



Олег Двойников.
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[10/28/2011] TSAR BOMB IS 50 YEARS OLD

A.V. Veselovsky, honorary veteran of RFNC-VNIIEF, head of the scientific testing department (in 1956-2009), laureate of the USSR State Prize

The test of the A6027 charge was conducted on October 30, 1961 at the Novaya Zemlya test site. The superbomb was developed and manufactured in record time in two copies: a control product (for a dress rehearsal of the aircraft crew, the test site's measuring systems) and its combat version. Understanding that testing the superbomb would worsen the ecological state of the northern regions, primarily the Scandinavian countries, it was proposed to test a charge that in its "clean" version was 50% of the maximum power (i.e. 50 Mt).

The last way is to drop the bomb

The purpose of creating a super bomb

The creation of nuclear weapons by the Soviet Union, despite the deprivations of the post-war period, became an effective factor in deterring any aggressors from launching new global wars. Understanding that the arms race to achieve nuclear parity with the USA and NATO would require enormous material costs and create an increased threat of unleashing new wars, the USSR fought for its complete ban since 1946. But, having a monopoly on nuclear weapons (NW), the USA did not go for it.

In 1949, after the USSR tested its first atomic bomb, the RDS-1, the USSR proposed a moratorium on full-scale nuclear tests as a palliative. However, the US rejected these proposals as well. The moratorium on nuclear tests proclaimed by the Soviet Union in 1958 was finally heard by the West. And in 1959 and 1960, nuclear weapons were not tested. But intelligence data revealed that the US was intensively developing new types of nuclear charges and was ready to test them in 1961. The top leadership of the USSR, together with nuclear scientists, understood that some kind of impetus was needed to intensify disarmament negotiations.

The young theoretical physicist Yu. A. Trutnev proposed the idea of creating a 100 Mt superbomb, which could frighten foreign

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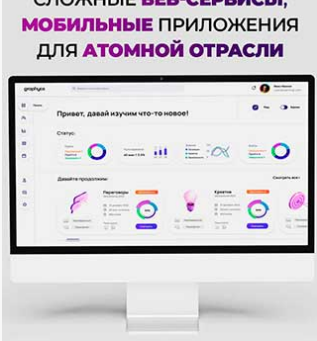


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The book by B.I. Nigmatulin and V.A. Pivovarov "Reactors with heavy liquid metal coolant. The history of tragedy and farce" has

skeptics who believed that Soviet nuclear scientists were significantly weaker than the American ones. The idea was supported by academicians A. D. Sakharov, Yu. B. Khariton and Ya. B. Zeldovich. The country's top leadership, having agreed on the issue with scientists, decided to create and test a super-powerful weapon. The final decision to resume nuclear weapons testing and create a superbomb was made in July 1961, when the scientific leadership of KB-11 (VNIIEF) reported to N. S. Khrushchev about the possibility of developing a hydrogen bomb with a capacity of 100 million tons in TNT equivalent.

Prehistory of the development of high-yield nuclear weapons

When creating the first thermonuclear charge in KB-11, there were two versions:

- RDS-6T ("pipe") headed by Ya.B. Zeldovich;
- RDS-6S ("layer cake") headed by A.D. Sakharov

(see "Real Hydrogen", "Atomic Strategy" No. 48, October 2010) a "repair option" was also envisaged – the creation of an atomic bomb with a capacity of 300 kt, which was carried out by E.I. Zababakhin.

The development of the RDS-6T was deemed unpromising, and the successful test of the RDS-6S on August 12, 1953 buried the continuation of work on the "repair option".

In 1955, by decision of the Government, a second nuclear center was created - NII-1011 (RFNC-VNIITF) in Chelyabinsk-70 (now Snezhinsk), where a third of the KB-11 employees were transferred. The subject of work was identical. The new nuclear center had to somehow prove itself. Probably, that is why a project for developing a super bomb with a capacity of 30 Mt was proposed on an initiative (the first thermonuclear device "Michael" of the USA, tested in 1952 on the Bikini Atoll, had such a capacity). The R202E charge in terms of dimensions and weight turned out to be significantly larger than the RDS-6S, RDS-37. It required the development of a new ballistic body of the aerial bomb and a powerful parachute system capable of slowing the descent of the bomb after dropping from the aircraft to the "critical altitude" (the altitude of the air burst) so that the carrier aircraft could move away to a safe distance.

The bomb's dimensions were so large that it could not be suspended even on the largest strategic bomber, the TU-95. In agreement with the Tupolev firm, one TU-95 prototype was modified and given the designation TU-95-202. This prototype with an external bomb suspension (instead of a bomb bay, a large

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Time and Fates



**Атомные
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extrusion with powerful bomb-holder locks was made at the bottom of the fuselage) was intended to test the aerodynamics, ballistics of the aerial bomb and a unique parachute system (developed by the MAP Research Institute of Parachute-Assault Equipment). The testing was carried out by Research Institute-1011 and the 71st Air Force testing ground (Bagerovo station, Crimean region).

It seems that there were three reasons why the matter did not reach full-scale testing:


- there was a moratorium on nuclear testing;
- a bomber with an externally mounted aerial bomb would significantly lose speed and maneuverability and could become an excellent target for the air defense of a potential enemy;
- at the initial stage of the work of NII-1011 there were many serious mistakes and even failures during the explosion of the nuclear charge.

Most likely, further work was deemed unpromising and suspended.

Creation of the Tsar Bomba AN602

After the adoption of the USSR Government's decree on the resumption of nuclear tests in July 1961, KB-11 began emergency work on the development, calculation and theoretical justification, and preparation for testing not only of the superbomb, but also of a series of other nuclear weapons. Particular attention, of course, was paid to the super-powerful bomb.

Even before this decree, the theoretical physicists of KB-11 were distributed among the development of "their" charges. Therefore, it was decided to call in Doctor of Physical and Mathematical Sciences V.B. Adamsky from vacation to develop the superbomb, connecting to him the theoretical physicist and recent graduate of MEPhI Smirnov Yu.N., as well as the initiators of the creation of the superbomb, Candidate of Physical and Mathematical Sciences Yu.A. Trutnev and Candidate of Physical and Mathematical Sciences Yu.N. Babaev. Academician A.D. Sakharov took upon himself the leadership of the development.

 The developers of the charge were Adamsky, Trutnev and Smirnov.

The situation was aggravated by the tight deadlines for the start of the tests (01.09.1961), and the lack of computers to carry out the required number of calculations. All computers of the Mathematical Institute of the USSR Academy of Sciences had to be used (the KB-11 mathematicians worked there at night and on weekends). And only on October

24 (6 days before the tests) was the final report on the bomb design and the calculation and theoretical justification completed. But even then A.D. Sakharov (already without a computer) was still working on the necessary modifications.

The task of designing the bomb body and its parachute system was significantly simplified for KB-11 due to the fact that this work had already been completed by NII-1011 (for the "202" product). The dimensions of the bomb and parachute system turned out to be quite impressive:

the bomb itself: length - 8.5 m; diameter - 2 m;

parachute system: extraction parachute – 0.5 m² ' brake parachutes, opened sequentially:

one – 5 m² ' three – 5 m² each ' one – 40 m²
' three – 40 m² each , main – 1600 m² .

A delegation from KB-11, headed by Director B.G. Muzrukov, twice Hero of Socialist Labor, went to Chelyabinsk-70, where 6 bomb casings were found in warehouses. The Moscow Research Institute of PDS began urgently manufacturing unique parachutes.

The unique TU-95-202 aircraft at the strategic long-range aviation airfield in Engels had already been written off by that time due to its uselessness and was subject to disposal. Urgent measures had to be taken. The aircraft was returned to service from the write-off category, its engines were replaced, a full revision of the power structures, electrical and radio equipment was carried out, repair and restoration work was carried out, after which it became as good as new. After conducting training flights on it, the Tupolev Design Bureau issued a conclusion on its suitability for combat work.

Since the KB-11 pilot plant did not have overhead cranes with a lifting capacity of 30 tons, it was decided to assemble the product in a disassemblable RK-7 freight car. A brick and reinforced concrete extension was urgently built to the assembly shop and a railway line was connected. The huge extension was completed in 2 weeks. It was unrealistic to connect the heating mains in such a short period of time. Heating was provided by electric heaters and fans.

The design of the superbomb itself and its charge included a large number of serious innovations. The powerful thermonuclear charge was made according to a "bifilar" scheme: for the radiation implosion of the main thermonuclear block, two thermonuclear charges were placed on both sides (front and

back) to ensure synchronous (with a time difference of no more than 0.1 μ s) ignition of the thermonuclear "fuel". KB-25 (VNIIA) modified the serial automatic detonation unit for this charge.

The calculations carried out on the computer seemed insufficient for A.D. Sakharov.

"Two days before sending the product to the testing ground, at 8 o'clock in the evening, Sakharov came to the workshop, approached the product (the bomb body was open and access to the charge was provided from both sides). Andrei Dmitrievich looked inside, felt the structure, then sat down on a chair in the corner and thought in the pose of Rodin's "Thinker". He sat like that until 12 at night, then asked for a sheet of clean paper. Since there was no paper in the workshop, they offered him a clean sheet of plywood.

On this plywood the academician drew a sketch, where it was proposed to install lead belts 60 mm thick on the inner conical surface of the charge body from the side of the initiator charges. I call the director of KB-11 Muzrukov B.G. at one in the morning: "What to do, the shipment is in 36 hours?" The answer: "Do as Sakharov said!" At 6.00 in the morning in the shop the designers draw "squirrels" and in 4 hours the lead belts are ready (from the memoirs of the head of the assembly shop of the KB-11 plant A.G. Ovsyannikov).

40 years later, when, on the instructions of the director and first deputy scientific director of VNIIEF, academician of the Russian Academy of Sciences R.I. Ilkaev, calculations on the three-dimensional problem "Mimosa" were checked in the most powerful computing center in Russia at VNIIEF, it was confirmed that the absence of these lead belts would have led to a significant distortion of the sphere of radiation implosion and a decrease in the power of the explosion by $\sim 80\%$. Thus, the academician's idea turned out to be much more advanced than the computers available at that time.

Work at the landfill

The testing ground also carried out extensive preparatory work for the superbomb test. The bridge crane in the DAF building (Dukhov, Alferov, Flerov), designed for 30 tons of cargo, had a wider span, so when constructing the DAF structure, an extra piece was cut out of the main load-bearing structure of the crane bridge, and the structure was welded again. It was necessary to urgently resolve the issue of static and dynamic tests of the crane. The crane was tested for a maximum of 20 tons. This was enough for the previous work.

A T-34 tank (without a turret) weighing 30 tons was found at the Olenegorsk Mining and

Processing Plant, which was used as a powerful tractor. With additional pig-iron attachments weighing 7.5 tons, it was used as a load for testing a crane. The ends of a cable as thick as an arm were laid on the floor. Four railroad ties were secured to each side of the machine to prevent the cable from fraying. Only a commission from the testing management, the State Oil Supervision Authority, and safety engineering remained in the room. Crane operator Sasha Kochetov was given the blessing to lift. He risked the most, being in his cabin 6 meters above the floor. The lifting began in tense silence, the electric motors roared with effort, lifting 37.5 tons. Suddenly a shot, then a second one – the commission was blown away from the room as if by the wind. It turned out that the sleepers, pinched by steel cables, burst like matches. The crane passed the test, and Kochetov, smiling, wiped the profuse sweat from his face.

Finally, the train with the superbomb arrived at the unloading station. Since the polar night had already set in in the Arctic, and according to the requirements of the regime it was necessary to unload in the dark, and according to safety regulations a good view was required, the unloading site had to be well lit. In addition, filmmakers arrived from Mosnauchfilm to film the technology of preparing the test. Therefore, the unloading site was brightly lit by "Jupiters".

The unloading ramp located below provided a wonderful panoramic view from the village of Vysokoye, which stood on a hill. Therefore, the regime officials could think of nothing better than to send a soldier to each apartment to ensure that no one approached the curtained windows.

The superbomb on a powerful bed, a metal frame, was dragged onto a large multi-wheel trailer and delivered by a KrAZ tractor to the DAF assembly hall. The upper stabilizer feather of the bomb was installed directly under the aircraft. Otherwise, the "load" would not pass through the gate and would not fit into the railway clearance of the T1 car. When removing the bomb from the trailer, a new surprise awaited. The crossbar with rigid rods, weighing 600 kg (developed by NII-1011) was borrowed, it was developed for the RN202 product. The centering of the AN602 turned out to be different. V.P. Buyanov quickly solved the problem: 2 braided cables with a diameter of 10-12 mm are folded into 8 threads each, and thus the two rods are extended by 450 mm. The safety representative who refused to work with such an "addition" is removed from the room. The superbomb is raised by 100-150 mm, the tractor with the trailer is removed, the load is lowered to the floor, and with a minimum lift is moved to the desired location.

The next day, rigid adapters-extensions were manufactured and tested at the Olenegorsk Mining and Processing Plant based on the sketches of the head of the design department, I. I. Kalashnikov. The lifting problems were solved. Intensive preparation of the superbomb itself began. There was more work, since in order not to overcool the charge when suspended externally, it was necessary to mount a fiberglass "coat" with an electric heating and thermostatting system on the inner surface of the ballistic casing.

The cargo parachute weighing 1846 kg, located in a cylindrical cup in the tail section of the body, was also a unique device. After the parachute pin was pulled out when the bomb was torn away from the carrier aircraft and the automatic opening mechanism was held for a while, a small 0.5 m² extraction parachute was fired, followed ^{by} a 5 m² parachute, three 6 m² parachutes, then three 40 m² parachutes, and finally the main parachute of 1600 m².

The parachutists from the Research Institute of PDS joked that from the fabric of this parachute all the women of Arzamas-16 could be sewn a smart blouse. After the tests were completed, I received a canvas bag from this parachute as a gift from the Research Institute of PDS. It became an awning cover for my Volga.

The preparations were clearly hampered by the "filmmakers" (when they turned on five "Jupiters" of 5-8 kW each - the crane could no longer work), who tried to film us, and we tried to dodge so as not to end up in this ambiguous documentary film. We were dressed in white coats and doctor's caps, then the caps were removed, since it began to resemble a hospital. Filming continued at the airfield. The youngest cameraman was seated on the plane with the blister shooters with a movie camera. His task was to film the dropping of a superbomb and teach the shooters from the plane's crew to film, since "aliens" were not allowed on board the plane during a combat sortie.

I asked the deputy head of the 2nd Main Directorate of the MSM, KGB Lieutenant Colonel G.I. Dorogov about the purpose of filming the movie, expressing doubt that, despite its historical value, no one would see it due to its high secrecy. To which he replied: "In addition to historical value, there is also political value. During diplomatic negotiations, especially with third world countries, when their leaders are clearly intractable, a rather harmless but cunning move is used... According to the work regulations, entertaining movies are planned to be shown between sessions as a break, and suddenly, among the newsreels of the day, there is a movie about

the testing of Soviet nuclear weapons. After this, the diplomats silently sign agreements that are beneficial to the USSR. Thus, during a visit to Moscow by the Shahanshah of Iran, Reza Pahlavi, a movie about the testing of the first Soviet "hydrogen tank" was shown. During the screening, his wife Soreyya, covering her face with her hands, ran out of the cinema, and the Shah, having watched to the end, became the Kremlin's "best friend."

Finally, the huge TU-95 bomber, the slenderness of whose fuselage was disrupted by a bomb protruding significantly from below, takes a long and laborious run and takes off with difficulty at the end of the runway (the flight weight of the product was 26.5 tons). The test of the control product was successful: all the systems of the aircraft, the superbomb, the measuring systems of the test site worked normally, and even the filming was a success.

High-ranking officials arrived to prepare for the testing of the combat product (on the second day after the control test): Commander-in-Chief of the Strategic Missile Forces, Marshal of the Soviet Union Kirill Semenovich Moskalenko, appointed after the death of Marshals M.I. Nedelin and then S.S. Biryuzov (who died in an airplane crash over Yugoslavia), and Minister of Medium Machine Building Efim Pavlovich Slavsky.

The legendary marshal turned out to be short and frail. In appearance, he somewhat resembled Generalissimo A. V. Suvorov. His childish, weak and very cold hands were striking. After familiarizing himself with the equipment and hearing the leading specialists' reports, the marshal wanted to talk to the commander of the TU-95 crew, Major A. E. Durnovtsev. He asked the pilot about his readiness to carry out such an honorable and responsible mission, and inquired why the commander of the crew was still a major at 40 years old. Despite the fact that according to the staff, the commander of a long-range bomber squadron is a major's position, K. S. Moskalenko ordered the adjutant to send a coded message to the Minister of Defense about the early assignment of the next military rank to Durnovtsev. For the successful completion of the mission, the crew commander Durnovtsev and navigator Kleshch were to receive the title of Hero of the Soviet Union and extraordinary military ranks without any encryption. Thus, within a week, Major Durnovtsev became a colonel.

In the film, we starred with beards, which we swore not to shave until the end of the tests. And these Fidel beards caused irony in the minister E.P. Slavsky. A large group of theoretical physicists arrived with Slavsky. They were amazed by the dimensions of the superbomb. They asked for souvenirs as a

keepsake: some got nuts, some got studs. By agreement with the military representative, I unscrewed the nameplate from the charge as a keepsake, which is still kept in my home museum. E.P. Slavsky flew to Novaya Zemlya to see the tests with his own eyes.

The preparation of the combat product was carried out without deviations according to the technology tested on the control product. I carried out the transfer of charges to combat readiness (equipping with detonators) as a very responsible and dangerous operation myself. Before equipping the product, E.A. Negin declared that he would equip it. Having gathered my impudence, I asked if he had a "blaster's book", to which Evgeny Arkadyevich, measuring me with a contemptuous look, replied that he was engaged in blasting operations when I was still a baby. He equipped skillfully, but somewhat carelessly, which, apparently, was a special chic of a real blaster.

At the airfield, after the troublesome suspension, installation of the upper stabilizer feather and entering the flight mission into the automatics, I went to sign the papers with E.A. Negin and N.I. Pavlov. After signing, General N.I. Pavlov asked me to give him the keys to the superbomb's electric lock. I gave him one set, kept the duplicate for myself, to which E.A. Negin replied: "Don't show off, Anatoly Vasilyevich, give me the second pair too!" I had to give the second pair of keys too. I thought to myself that I had a better souvenir - a nameplate from the charge.

The plane took off safely and went on a combat course. By the time it returned, we already knew that an explosion of unprecedented power had taken place, the nuclear mushroom cloud had risen into the stratosphere to a height of 67 km, and the carrier plane had not experienced any unexpected effects. Everyone congratulated each other. Particularly pleased was the deputy director of the Scientific Research Institute of PDS, Oleg Ivanovich Volkov, who was very worried about his unique parachute system. He admitted that there was less concern during the descent of space objects, since the degree of testing there was much higher and the reliability was confirmed by a large number of experiments.

The report of the crew of the state commission was received with triumph. General N. I. Pavlov embraced each member of the crew and congratulated them on their success. After reporting the success to the highest authorities: the Central Committee of the CPSU, the Government and the Minister of Defense, the test management left for the hotel. We continued working. Suddenly, A. D. Sakharov called on the HF apparatus: "Hello, this is Sakharov speaking. Could you tell me

the results of the 602nd test?" I knew that the TNT equivalent had already been estimated at approximately 50 Mt, but since we were constantly told that this was information of "special importance", I tried to avoid a direct answer, saying that the equivalent was higher than the calculated one. To which I received the answer: "Thank you, that's enough for me." In the evening, the theoretical physicists held a reception in the "general's" hotel, where they invited V. P. Buyanov and me from the testers. The banquet was a solemn one: N. I. Pavlov congratulated everyone on their great success on behalf of N.S. Khrushchev, the Central Committee of the CPSU and the Government and wished them further creative success. The official part was followed by an unofficial one, in which the "cunning" theoretical physicists beat E.A. Negin in preference.

Awards of the Motherland

After the tests, a specially ordered IL-18 aircraft took us to Moscow; from Moscow to Sarov we traveled by our own aircraft. At our home airfield, we were met by a delegation headed by the director of the institute B.G. Muzrukov, the first secretary of the City Committee of the CPSU A.S. Silkin, and representatives of the city government. They shook our hands, thanked us, the only thing missing was an honor guard and a brass band. We were pleasantly surprised by such attention from the management, which was stingy with fanfares.

N.S. Khrushchev reported to the 22nd Congress of the CPSU: "I want to say that our tests of new nuclear weapons are proceeding very successfully. We will soon complete these tests. Obviously, at the end of October. In conclusion, we will probably detonate a hydrogen bomb with a capacity of 50 million tons of TNT. We said that we have a bomb with 100 million tons of TNT. And this is true. But we will not detonate such a bomb, because even if we detonate it in the most remote places, we can still knock out our windows. Therefore, we are holding back for now and will not detonate this bomb. But, by detonating a 50-megaton bomb, we will thereby test a device for detonating a 100-megaton bomb. However, as they said before, God grant that we never have to detonate these bombs over any territory. This is the greatest dream of our life!"

At the beginning of 1962, a "starfall" fell upon the MSM workers: the pages of the central newspapers were filled with articles about the testers. A small but very significant article for us, "Awards to the Heroes of the Atom," appeared in Pravda.

"For the great merits achieved in the development of the atomic industry, science and technology, the development, improvement and testing of new models of powerful thermonuclear weapons, the Presidium of the Supreme Soviet of the USSR awarded particularly distinguished workers - twice Heroes of Socialist Labor - the third gold medal "Hammer and Sickle", awarded the title "Hero of the Soviet Union" to a group of officers of the missile forces and aviation, the title "Hero of Socialist Labor" - to 26 leading designers, scientists, engineers and workers, awarded orders and medals of the USSR to more than 7 thousand workers, designers, scientists, managers, engineering and technical workers and military personnel of the Missile Forces, Air Force and Navy, awarded the Order of Lenin to a number of research and design institutes and factories. For special merits in fulfilling the task of the party and government to develop and improve thermonuclear weapons and successes in the development of atomic science and technology, the Council of Ministers of the USSR expressed gratitude to a group of leading scientists and designers - Heroes of Socialist Labor, laureates of the Lenin Prize."

On V.I. Lenin's birthday, a group of our leading specialists were awarded the high title of Lenin Prize laureates. In KB-11, ten people were awarded the title of Hero of Socialist Labor, A.D. Sakharov received the third Hero star, Yu.B. Khariton and Ya.B. Zeldovich - already three times Heroes of Socialist Labor - received personal gratitude from the USSR Government. Among our employees of the second thematic direction (KB-2), the title of Lenin Prize laureate was awarded to First Deputy Chief Designer Yuri Valentinovich Mirokhin, Deputy Head of the Design Department Aleksandr Ivanovich Yanov and my direct superior and teacher, Deputy Head of the Test Department Vladimir Petrovich Buyanov. Among others, I received my first order - the Order of the Red Banner of Labor, which was presented by our first head of the facility, Deputy Minister of Sredmash, Lieutenant General Pavel Mikhailovich Zernov.

The Significance of the Superbomb Tests

In the history of Russia, a certain pattern has been noted in the creation of hypertrophied examples of unique products: the Tsar Bell (which did not ring), the Tsar Cannon (which did not fire), and, finally, the Tsar Bomba (which was detonated with a slightly higher than expected yield - 52.5 Mt).

This record-breaking explosion became the culmination of the Cold War era. As expected, the explosion of such enormous power caused alarm throughout the world. The Scandinavian

countries, located in close proximity to Novaya Zemlya, were particularly outraged. US nuclear scientists were surprised that the superbomb turned out to be extremely "clean" – only about 2 percent of the explosion's energy came from the fission reaction, the rest of the energy came from the fusion reaction, which does not create additional radiation. Speaking at the 22nd Congress of the CPSU, N.S. Khrushchev said: "We are proud of our comrades, we pay tribute to them, we rejoice in their creative successes, which contribute to strengthening the defensive power of our Motherland, strengthening peace throughout the world." These tests made it possible to sign the "Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space, and Over Water" in Moscow in 1963 between the leading nuclear powers: the USSR, the USA, and Great Britain. Other countries joined them later.

This event was welcomed by the entire world. The Moscow Treaty was a significant step in improving and healing the ecological situation of our planet. The USSR continued to fight for a complete ban on nuclear tests (underground), and in 1990 such a treaty was adopted.

The creation and testing of the world's most powerful thermonuclear charge with a capacity of 50 Mt served as an impetus for reducing the arms race throughout the world. And our outstanding nuclear scientists deserve a great deal of credit for this.



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Thank you for your interest

Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 10/28/2011

Great deeds of great people! Tsar Bomba - guarantor of peace!
10/30/61 was a victory comparable to the victory in the Great Patriotic War.
It's a pity that today's bastards in power only squander and sell cheaply the conquests and victories of those great people - the Soviet people. And they still call themselves Russians!

[[Reply to this](#)]

Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 02/11/2011

Russians live in Russia, and Russians rule them.
(L. Shebarshin)

[[Reply to this](#)]

Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 10/29/2011

Where can I watch a film about this test?

[[Reply to this](#)]

Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 10/31/2011

I once saw this film at a military training camp for reservists at the Pushkin Submarine School, around 79-80. Impressive.

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Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 10/31/2011

here

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Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 10/31/2011

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Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 10/29/2011

yes...

Managers can't do that, they are weak in what they do, but stingy with money... you can't do that with new technologies...

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Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 10/31/2011

Here they are in the photo, our dear doctors Mengele, Bokassa, potential murderers of millions of people. What? They are carrying out orders.

[[Reply to this](#)]

Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 10/31/2011

Enough of this chatter about "potential murderers of millions of people". Leave this liberal nonsense to your overseas masters. Soviet scientists defended the

Motherland and won that stage of the Cold War.

Turbinist

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Re: minescence (Total: 0)

by Guest on 10/31/2011

"We do not plow, we do not sow, we do not build, We are proud of the social system..."

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Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 01/11/2011

The Soviet Union did not drop the Bomb on people.

But your masters did.

Dresden - 200,000? (conducting comparative tests to evaluate the effectiveness of atomic weapons)

Hiroshima - 150,000?

Nagasaki - 80,000?

So Mengele, Bokassa are Truman, Teller, Oppenheimer.

[[Reply to this](#)]

Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 01/11/2011

The Jews have crawled out to shit on the anniversary of our great victory!

Get out of here, Jews! Your place is in hell with the devils!

[[Reply to this](#)]

Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 01/11/2011

" *Why is there no anti-Semitism in England ?* " - We don't think Jews are smarter than us. (Winston Churchill)

[[Reply to this](#)]

Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 02/11/2011

We don't compare dicks, it's just that the Jews are lower than us in moral qualities!

[[Reply to this](#)]

Re: TSAR BOMB IS 50 YEARS OLD (Total: 0)

from Guest on 02/11/2011

Ну, вы, безграмотные, прекратите здесь национальную рознь разжигать. У всех наций есть и плохие и хорошие люди. Я, например, стараюсь никогда

не связываться в бизнесе и в услугах с русскими. Знаю, что там воровство, пьянство, кидалово и банальная лень. Никто не пробовал пригласить русских на ремонт квартиры или работы на даче? И не пробуйте. Лучше - киргизов, таджиков, узбеков. Сделают быстро, ответственно. Кстати о антисемитизме. Это понятие имеет отношение к арабам, и уж никак не к евреям (семиты - это преимущественно арабы). Для них есть другое слово: юдофобия. Евреи - это умный, трудолюбивый народ. И еще, в отличие от нас, русских, они своих не сдают и всячески им помогают. Так что, прежде чем вкаты, наберитесь грамотешки, вашу мать...

[\[Ответить на это \]](#)

Re: ЦАРЬ-БОМБЕ 50 ЛЕТ (Всего: 0)

от Гость на 02/11/2011

Бизнесмен, бизнесмахер, гешефтмахер, подлый вор короче или поджидок!

[\[Ответить на это \]](#)

Re: ЦАРЬ-БОМБЕ 50 ЛЕТ (Всего: 0)

от Гость на 02/11/2011

А что, у вас и бизнесмен ругательное слово? Человек, который организует (дословно) дело, работу - это по-вашему плохой человек? Так рассуждать могут только лодыри, пьяницы, воры и кидалово. Смотри комментарий выше (со слов Ну, вы...)

[\[Ответить на это \]](#)

Re: ЦАРЬ-БОМБЕ 50 ЛЕТ (Всего: 0)

от Гость на 07/11/2011

За 15 лет до войны (1924-1939) в СССР было построено 9.500 заводов и фабрик, развиты новые технологии, заложена основа для послевоенного рывка в космос и освоения атомной энергии.

А что сделали ваши бизнесмены за 20 либеральной идеи в России? Сколько построили заводов? Какие новейшие технологии ввели в работу? НИЧЕГО! Кроме инвестиций в торгово-развлекательные центры, дилерские центры и т.д.

Так что пока термин бизнесмен в России несет негативный смысл.

[\[Ответить на это \]](#)

Re: ЦАРЬ-БОМБЕ 50 ЛЕТ (Всего: 0)

от Гость на 24/03/2012

идите все на ...

[\[Ответить на это \]](#)

Re: ЦАРЬ-БОМБЕ 50 ЛЕТ (Всего: 0)

от Гость на 31/10/2013

В России "бизнеса" в том виде, который словом "бизнес" и называется, практически нет. Ну не бизнесом называется это банальное воровство и пилеж бюджета на разные мегапроекты, перепродажа западной техники, продуктов и тряпок в наших магазинах, впаривание кредитов под заоблачные проценты и оказание услуг ЖКХ, чем раньше занималось государство. Ничего нового (технологии, самолеты, оборудование и т.д.)

наши горе-бизнесмены не создали, не построили ни одного нормального завода, а не очередную сборку западного русским рабочим. Какой это нахрен "бизнес"? Просто проедается и эксплуатируется то, что было в СССР построено. Только уже в личный карман.

[[Ответить на это](#)]

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